

REMARKS

Claims 1-33, 66-76, and 117-156 are pending and remain in the application. Claims 66-76 and 154-156 have been allowed. Claims 17, 27, 33, and 117-153 have been objected to. Claims 1-16, 18-26, and 28-32 stand rejected. Claims 12, 17, 27, 28, 33, 117, 118, 125, 126, 134, 135, 145, and 146 have been amended. Claims 157-172 have been added. Support for the new claims can be found throughout the specification and in the claims. Applicants respectfully traverse the rejections for the reasons expressed herein below.

A. Objected to Claims

Claims 17, 27, 33, and 117-153 stand objected to as being dependent on a rejected base claim, but are said to be allowable if written in independent form including all the limitations of the base claim and any intervening claim. In this regard, claims 17, 27, 33 and 117-153 have been amended, where appropriate, in independent form to include all the limitations of the base claim and any intervening claim.

Accordingly, withdrawal of the objections to claims 17, 27, 33, and 117-153 is respectfully requested.

B. Claim Rejections under 35 U.S.C. §102

Claims 1-5, 9-16, 18-21, 24-26, and 28-32 stand rejected under 35 U.S.C. §102(b) as being anticipated by JP 60-21559 ("JP '559"). The Examiner draws the Applicants' attention to specific areas of JP '559 that are said to teach the present

invention as recited in the claims. Applicants respectfully traverse this rejection and request reconsideration of claims 1-5, 9-16, 18-21, 24-26, and 28-32.

Claims 1-5, 9-16, 18-21, 24-26, and 28-32 recite a fiber reinforcement material, a reinforcement for cementitious material, or a reinforced cementitious material comprising a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament, twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm).

As noted by the Examiner, JP '559 discloses fibers for reinforcing cement wherein the fibers form yarns with a size of 200 – 5000 denier. As set forth in JP '559 at page 2, first paragraph under Section 2 entitled "Patent Claims," and at page 8, first paragraph, the invention set forth in JP '559 "is characterized by consisting of synthetic fibers with a fineness of 0.5 – 25 denier." It is the yarn of JP '559 (i.e. the multiple fibers twisted into a wetted bundle) that has a denier size of 200 – 5000 denier, not the individual monofilaments, as recited in the claims of the present invention. Indeed, in Section 3 of the disclosure of JP '559 (for example, at page 6, first and second full paragraph), JP '559 distinguishes what are characterized as poor performing "thick" fibers of the prior art (100 – 1000 denier, for example) from the "fine" fibers of JP '559 that have a size of 0.5 - 25 denier.

Thus, for at least the reason that JP '559 does not teach a denier size of about 350 to about 6000 denier per filament, Applicants submit that JP '559 does not anticipate claims 1-5, 9-16, 18-21, 24-26, and 28-32 of the present invention, and that

any rejection of 35 U.S.C. § 102(b) cannot stand. Withdrawal of the rejection under 35 U.S.C. §102(b) over this reference is respectfully requested.

In addition, the teachings of JP '559 do not render obvious claims 1-5, 9-16, 18-21, 24-26, and 28-32 of the present invention. As discussed above, JP '559 teaches away from the use of "thick" (e.g. 100 – 1000 denier) fibers as a reinforcement for cement (stating at page 6 that "it is impossible to achieve a high level of strength and Young's modulus by using such thick fibers"), and, instead, teaches the use of "fine" fibers having a denier of 0.5 – 25 denier. This arrangement is clearly different from the fiber reinforcement material set forth in claims 1-5, 9-16, 18-21, 24-26, and 28-32 of the present invention.

Accordingly, JP '559 cannot be said to render obvious claims 1-5, 9-16, 18-21, 24-26, and 28-32 of the present invention.

C. Rejection of Claims 1, 6-8, 18 and 22-23 under 35 U.S.C. §103(a)

Claims 1, 6-8, 18 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '559. The Examiner indicates that although JP '559 does not disclose that the strands of monofilaments consist of a copolymer of polyethylene and polypropylene, it would have been obvious to one of ordinary skill in the art to use these materials.

For the reasons discussed above in Section B, claims 1, 6-8, 18 and 22-23 are believed to be clearly distinguishable from JP '559. Indeed, as discussed above, JP '559 teaches away from the use of "thick" monofilaments (e.g. those fibers greater than 100 denier), as recited in the claims of the present invention.

Thus, Applicants submit that JP '559 does not render obvious claims 1, 6-8, 18 and 22-23 of the present invention, and that any rejection of claims 1, 6-8, 18 and 22-23 under 35 U.S.C. §103(a) cannot stand. Accordingly, withdrawal of the rejection of claims 1, 6-8, 18 and 22-23 under 35 U.S.C. §103(a) over JP '559 is respectfully requested.

D. New Claims 157-172

New claims 157-172 have been added, and are believed to be patentable over the prior art of record for the reasons set forth herein. Support for the new claims can be found throughout the specification and in the original claims.

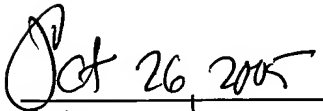
Accordingly, allowance of new claims 157-172 is respectfully requested.

CONCLUSION

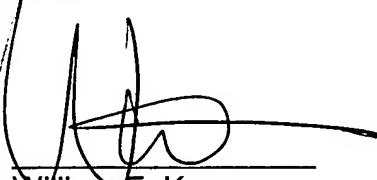
Applicants submit that claims 1-33, 66-76, and 117-172 of the present invention recite a novel and non-obvious fiber reinforcement material and cementitious materials employing the same. The cited reference does not teach or suggest the claimed invention. In view of the foregoing, Applicants respectfully submit that the subject application is in condition for allowance. Accordingly, reconsideration of the rejections and allowance of all claims at an early date are earnestly solicited.

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If the undersigned can be of assistance to the Examiner in addressing issues to advance the application to allowance, the Examiner is invited to contact the undersigned at the number set forth below.


Date

Respectfully submitted,



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